GS GRADUATE SCHOOL USDA

PC PULSE

Bits & Bytes

What does a pickled herring, worm, little snail and strudel have in common?

They are all meanings for the @ symbol—in different languages.

Bosnian, Croatian and Serbian–@ is referred to as the "Crazy I."

Czech–@ is called zavinac, meaning "rollmop," or "pickled herring."

Hungarian–@ is called kukac, meaning "worm" or "maggot."

Hebrew–@ is shablul or shablool, meaning "snail" or a shtrudl, meaning "strudel."

The Doctor Advises . . .

To keep the root directory organized. Keep your system's startup and software initialization files in the root directory. Application files and their data belong in a separate directory from the root directory.

Do not store your data files in the same directory as the software. This will eliminate the possibility of accidentally erasing or overwriting a software file.

What is . . .

Buffer Overflow – when data that is written into a buffer exceeds the storage capacity of that particular buffer and the "overflow" data then flows into an unintended buffer—essentially corrupting the data in that buffer.

Hackers can launch buffer overflow attacks with imbedded instructions to corrupt a system. The instructions are purposely written into a file, knowing that the data will overflow into buffer and release the original buffer's instructions into their computer's instructions.

Instructor Teaches IT Professionals Computer Security

Gavin Stokes, lead instructor for the Information Security Specialist Certification program at the Graduate School, USDA, teaches information technology (IT) professionals, from both the public and private sectors, the skills to secure their computer systems.

Stokes provides an overview of the current hacking environment and history, which highlights international sources of malicious codes in Africa, Asia, Russia and the United States. Students learn about global hacking wars and the introduction of worms like "Code Red" into computer systems. The course covers attack methodologies; for instance, the "denial of service" attacks which disrupted operations at corporations like Microsoft.

Recent security threats from malicious codes in the form of worms, viruses and Trojans challenge public and private sector IT systems. Students study how worms and viruses propagate, and case studies of high profile attacks cover the complex methods for penetrating computer systems. Topics include buffer overflow, MSSQL worm, NetBus, NetSpy, Ripper and Smurf attacks.

Information Security Instructor Gavin Stokes.

The course also examines how IT professionals can prevent attacks through the use of security policy basics, risk assessment, firewall implementation, Transmission Control Protocol/Internet Protocol (TCP/IP), encryption and Public Key Infrastructure.

Another instructor who contributes to the state-of-the-art security curriculum at the Graduate School, USDA is Jan Carroll. With over 25 years of experience in training and consulting, Carroll has extensive experience in both applications development and security. His specialities include COMSEC, cryptography, computer viruses and security applications.

The Information Security Specialist Certification is a two-week program. The first week covers Information Security Essentials and the second week covers Introduction to Cyberwarfare. To register, call (202) 314-3600 or (888) 744-GRAD or visit our Web site at www.grad.usda.gov.

How Do You Stop An . . .
Intruder

Students in the Graduate School, USDA's Information Security Specialist Certification program discover that this rigorous curriculum has a positive pay off.

Enrolling to enhance her IT skills, Angela Pugh, an information technology specialist at the Federal Deposit Insurance Corporation, has experienced both the accomplishment of mastering complex subject matter and the excitement of learning the new security field. Angela cited instructor Gavin Stokes for his clear explanations of the difficult and technical IT security terms. In planning her career, Angela has noted that the knowledge of firewalls and virtual private networks is often required in both the private and public sectors.

At the Internal Revenue Service, Barbara Foor is a management analyst and is the liaison between its Large and Mid-Sized Business (LMSB) division and the IT department. Due to the confidential financial data compiled by the LMSB, Barbara must know the technical issues related to security. In the certification program she gained a greater understanding of these issues and participated in technical discussions and problem solving. She also cited Gavin Stokes as an excellent instructor, who made "a very difficult course much easier."

Computer Security Courses

Information Security Certification Program
SRTY9999T-N10
September 15-26, 2003, October 20-31, 2003
December 1-12, 2003

Computer Viruses, Hacking and Intrusion
SRTY7908T-N10
November 24, 2003, December 15, 2003, April 30, 2004

Firewalls Technology
SRTY7600T-N10
September 15-17, 2003, October 20-22, 2003, April 5-7, 2004

Firewalls and VPN Implementation
SRTY8600T-N10
September 18-19, 2003, October 23-24, 2003, April 8-9, 2004

Fundamentals of Computer Security for Federal Information Systems
SRTY7768T-N10
November 3-7, 2003, February 9-13, 2004, May 10-14, 2004

Introduction to Information Security
SRTY7000T-N10
September 8-12, 2003, October 27-31, 2003
February 2-6, 2003

Security in IT Applications
SRTY7809T-N10
November 25, 2003, December 16, 2003, April 29, 2004

UNIX Security for Systems Administrators
SRTY9984T-N10
September 22-26, 2003, March 15-19, 2003, July 26-30, 2004

Unleash Your Creativity

Explore the power of design with training in the Adobe family of design software. Learn how to manipulate photos with Adobe PhotoShop. Unleash your drawing potential with Adobe Illustrator. Create dynamic publications with the latest publication software Adobe InDesign and Acrobat. All of our Adobe courses are taught by experts who will show you how you can improve your productivity and increase the creativity of your projects.

Adobe Photoshop: Introduction
(DTOP7769T-N10)
September 15-17, 2003, November 3-5, 2003

Adobe Photoshop: Intermediate
(DTOP8869T-N10)
September 18-19, 2003, November 6-7, 2003

Adobe Illustrator: Introduction
(DTOP7901T-N10)
September 22-23, 2003

Electronic Publishing Using Adobe Acrobat: Introduction (DTOP7913T-N10)
September 29-30, 2003, December 8-9, 2003

Adobe InDesign (DTOP7988T-N10)
November 17-19, 2003

Evening Classes
Introduction to Adobe Illustrator for Windows (GART7703E-N10)
November 15, 2003-December 20, 2003

Introduction to Adobe Photoshop
(GART7749E-N10)
September 20, 2003-December 6, 2003

IT Faculty on the Cutting Edge

A 2002 faculty excellence award winner, Harold Goldstein developed and taught the first Internet and HTML courses for the Graduate School. Teaching courses such as MS FrontPage, Using the Internet and Advanced HTML, he is concerned with issues of circular design and its impact on student learning. In his eighth year on our faculty, Goldstein is the technical leader in offering online courses via Blackboard.

Sue Bartlett and Phyllis Gross developed the online tutorial STARFIRE for the Nuclear Regulatory Commission's Professional Development Center. This design tool teaches how to record time and attendance electronically for payroll and reporting purposes. Phyllis has taught database, spreadsheet and WordPerfect courses at the Graduate School for 12 years. Sue teaches courses on presentations and Web design.

OPM Accelerates IT Security Personnel Hiring

The Office of Personnel Management (OPM) has authorized federal agencies to hire qualified information technology specialists within a month; the regular hiring process averages four months. Published in the Federal Register on June 13, 2003, the new regulations give agencies the flexibility "to recruit, hire and retain high quality candidates."

Recognizing the importance of information security personnel, OPM has extended to them the same direct-hire authority that other select professions enjoy.

New State-of-the-Art Technologies and Upgrades.
The Graduate School's upgraded computer labs contain Pentium 4, 3.6 GHz computers. All classrooms have high-speed Internet connections and a computer for each student.

Learn how wireless communication can increase the productivity of your organization. The Graduate School, USDA has three high quality courses that will get you started on learning wireless technology and how it can benefit your organization.

Working Without a Wire
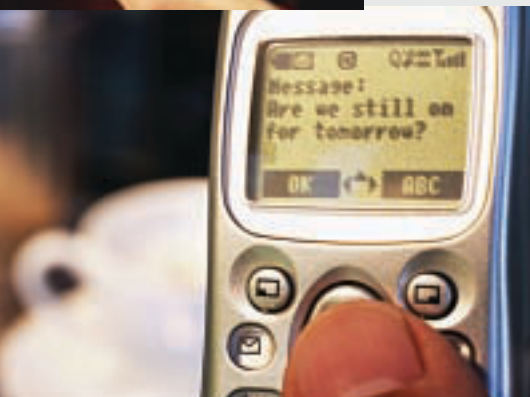
Personal Productivity for Handheld Wireless Devices (SRTY7519T-N10)

Wireless Mobile Networks
(SRTY7550T-N10)

Wireless Technology Seminar
(SRTY7302T-N10)

For course descriptions and a schedule visit our Web site at www.grad.usda.gov

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